Implementation of an Outpatient Specialty Pharmacy Clinical Practice Model in an Academic Medical Center: A Decade of Experience

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Learning Objectives

- Define key characteristics of specialty pharmaceutical agents that may be prescribed in specialty clinics at an academic medical center.
- Review the challenges health care providers, pharmacist, and patient face with specialty pharmacy services.
- Discuss methods for improving continuity of care and increasing specialty pharmacy revenue at an academic medical center.

University of Illinois Medical Center (UIMC)

- Comprehensive state academic medical center with 491 beds and 40 primary care and specialty outpatient clinics and six health science colleges.
- Centers of Excellence
  - Solid Organ Transplant, Women's Health, Robotic Surgery, Ophthalmology
- Patient population
  - African American and Hispanic
  - Medicaid and Medicare

Self-Assessment Questions

True or False:
1. Specialty pharmaceutical agents are usually dispensed by an on-site outpatient pharmacy.
2. REMS (Risk Evaluation and Mitigation Strategies) requirements may be associated with specialty pharmaceutical agents.
3. Utilizing clinical pharmacists may be a viable option to improving prescription volume and revenue at an outpatient medical center pharmacy.

Disclosure

The presenters for this continuing pharmacy education activity report no relevant financial relationships.
Initial Problem/Situation

- Outpatient pharmacies are struggling to remain solvent.
- Specialty pharmacy is a large and rapidly growing market, representing a potentially significant source of revenue to the outpatient pharmacy.
  - Administered or dispensed to the most complex patients with chronic conditions.
  - May have special shipping and handling requirements.
  - May require FDA-mandated REMS.
  - Drug therapy management is tied to overall patient outcomes.

Additional Issues

- Although patients requiring specialty medications originate from the specialty clinic, the prescriptions are being increasingly diverted away from the outpatient pharmacy to for-profit specialty pharmacy companies.
- The five largest, for-profit specialty pharmacy companies control 75% of this market.
- Restrictive payer contracting and pharmaceutical distribution practices play a major role in diverting prescriptions away from the outpatient pharmacy.

Outpatient Pharmacy Dispensing of Specialty Medications

**Advantages**
- Face-to-face contact with patients and providers
- Clinical pharmacy services at point of prescribing
- More efficient and faster prior authorization process
- Pharmacists have access to and document in EMR
- Patients can receive medication in person or through a delivery service

**Disadvantages**
- Specialty pharmacy dispensing is complex and time-consuming
- Low volume compared to a central specialty pharmacy
- High inventory costs and special processes necessary
- May not report dispensing data to pharmaceutical companies

Recommended Actions

- Develop an expanded specialty pharmacy clinical practice model to grow the specialty pharmacy business at UIC.
  - Identify opportunities and capabilities
  - Feasibility assessment
  - Economic modeling
  - Build on successful models
- Other options considered
  - Fax forms in clinics
  - Meetings with stakeholders

Annual Value Model for Specialty Drugs (Hypothetical Case)

<table>
<thead>
<tr>
<th></th>
<th>1 new patient</th>
<th>12 new patients</th>
<th>32 new patients</th>
</tr>
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<tbody>
<tr>
<td>Total Amount Reimbursed/Rx</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>Total Medication Cost/Rx</td>
<td>$4,500</td>
<td>$4,500</td>
<td>$4,500</td>
</tr>
<tr>
<td>Total Gross Margin/Rx</td>
<td>$500</td>
<td>$500</td>
<td>$500</td>
</tr>
<tr>
<td>Total Rx/Pt/Yr</td>
<td>12</td>
<td>12</td>
<td>12</td>
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<tr>
<td>Annual value per patient</td>
<td>$6,000</td>
<td>$72,000</td>
<td>$312,000</td>
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</table>
New Specialty Pharmacy Clinical Practice Models at UIC

Liver • 2002
GI • 2007
Arthritis • 2008
Multiple Sclerosis • 2010

Prior to 2002:
Nurse-Run Hepatitis C Clinic

Nurse

• Complete forms to obtain insurance approval
• Writes Rx

Patient

• Takes Rx to pharmacy
• Process Rx
• May mail order meds to patient

Pharmacy

• Patient brings medication back to Liver Clinic for education

Pharmacist-Run Hepatitis C Clinic

Clinical pharmacist

Monitor patients laboratory results via UIMC's EMR
Complete prior authorizations
Educate patient how to self administer medication
Work with UIC Pharmacy to obtain medications
Educate patient adverse effects

Hepatitis C Clinical Pharmacy Practice Model: After 2002

Clinical Pharmacist

• Improve patient care and clinical outcomes
• Decrease time to complete prior authorization

Increase revenue

Hepatitis C Clinical Pharmacy Practice Model

Prescription Capture for UIC Pharmacy

Pegylated interferon
• Pegasys®
• PegIntron®

Ribavirin
• Rebetol®
• Copegus®
• Ribasphere®

Erythropoietin
• Aranesp® 100mcg, 200mcg
• Procrit® 20,000 units and 40,000 units

Granulocyte colony-stimulating factor
• Neupogen® 300mcg

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UIC Pharmacy Hepatitis C Medication Gross Margin

- 1 year of data (6/25/2005 to 7/24/2006)
- 51 patients wished to have medications filled at UIC Pharmacy

<table>
<thead>
<tr>
<th>Hepatitis C Medications</th>
<th># of Rx filled</th>
<th>Dollars</th>
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<tbody>
<tr>
<td>Pegylated Interferon</td>
<td>51</td>
<td>$43,750.09</td>
</tr>
<tr>
<td>Ribavirin</td>
<td>46</td>
<td>$43,280.67</td>
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<tr>
<td>Erythropoietin</td>
<td>36</td>
<td>$85,081.35</td>
</tr>
<tr>
<td>Granulocyte colony-stimulating factor</td>
<td>10</td>
<td>$8,224.80</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>143</strong></td>
<td><strong>$180,346.91</strong></td>
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</tbody>
</table>

GI/Rheumatology and MS Prescription Capture for UIC Pharmacy

**GI/Rheumatology**
- Adalimumab (Humira®)
- Certolizumab (Cimzia®)
- Etanercept (Enbrel®)
- Golimumab (Simponi®)

**MS**
- Fingolimod (Gilenya®)
- Glatiramer (Copaxone®)
- Interferon Beta-1a (Avonex®)
- Interferon Beta-1a (Rebif®)
- Interferon Beta-1b (Betaseron®)

Results – Total Dollar Revenue

Results – Prescriptions Dispensed

What Worked and Didn’t Work

- Worked:
  - Improve communication
  - Deliver better care
  - Create an atmosphere of teamwork

- Did not work:
  - Fax forms
  - Attempt to get into specialty networks
  - Provide continuity of care
  - Payor lockout
Lessons Learned

- Pharmacy presence and collaboration with health care providers in the specialty clinics is the key to success.

Recommendations

- Consider one or more hybrid clinical-distributive positions for specialty pharmacy capture in an academic medical center.
- Focus on specific opportunities that are assessed in each institution.

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References